US Army Corps
of Engineers

Interagency Hurricane Workshop

USACE Response and Recovery Efforts

11 May 2006

James O. Ward, Jr.,
P.E. Deputy Director
Task Force
Hope

US Army Corps
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Topics

- Planning and Preparation
- Mobilization
- USACE Response and Recovery Missions
  - FEMA Assigned Missions
  - USACE Civil Works Recovery Missions
- Plans for 2006 Season

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Planning

- Hurricane ‘Pam” Exercise
  - FEMA
  - State of Louisiana
  - Other Federal Agencies
- May 05 - Mississippi Valley Division Hurricane Response and Recovery Exercise
- May 05 - Revised Hurricane Contingency Plan
- June 05 – Senior Leadership Seminar
  - FEMA
  - States
  - Three scenarios including Hurricane striking South Louisiana

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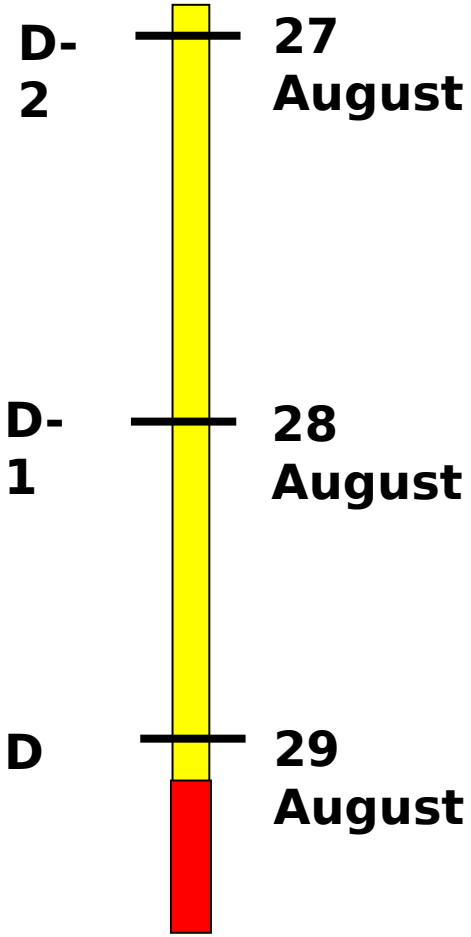
Preparation for Katrina



- Pre-declaration Mission Assignments from FEMA
- Most of New Orleans District Personnel Evacuated
  - Crisis Management Team to Vicksburg
  - Un-watering team to Memphis
  - COL Wagenaar, small team and Lock Operators remain
- USACE Personnel to FEMA Regional Response Center
- Ice, water Planning and Response Teams activated

Katrina Makes Landfall

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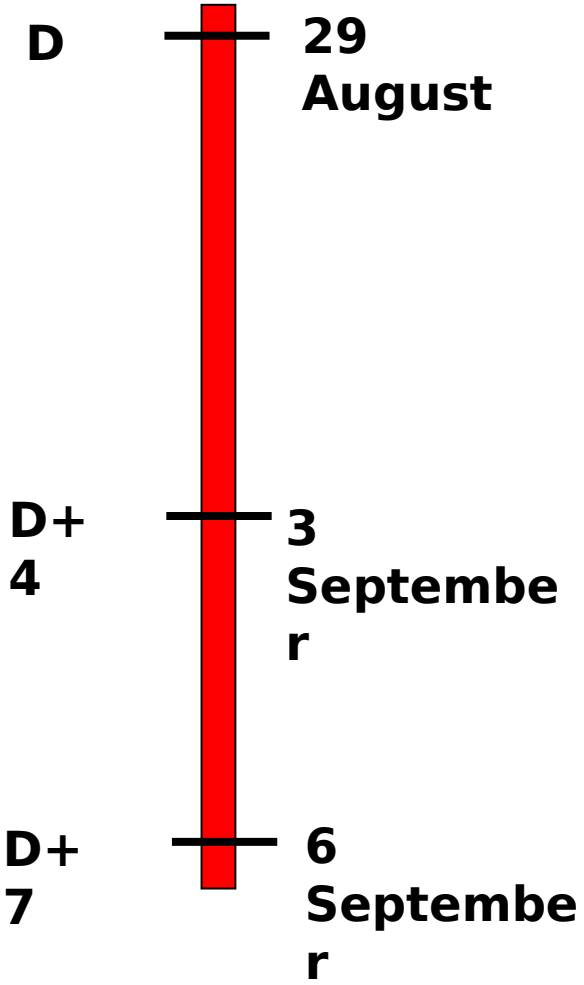
Katrina Mobilization



- Post Declaration Mission Assignments from FEMA
- Reconnaissance of area begins
- Reconstitution of New Orleans District Begins
- MVD Forward and USACE Fwd HQs Established
- Un-watering work begins
- LA Recovery Field Office Established
- Task Force Hope Established
- Task Force Un-watering established

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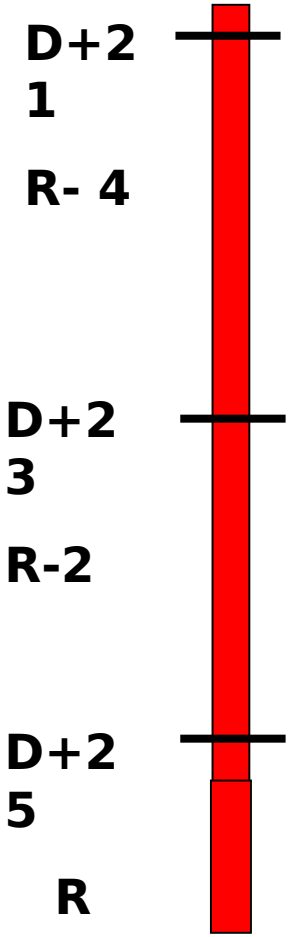
Preparation for Rita



D+21 R- 4 — 20 September

- Planning for Rita Begins

D+23 R-2 — 22 September

- Pre-declaration mission assignment from FEMA

D+25 R — 24 September

Rita Makes Landfall

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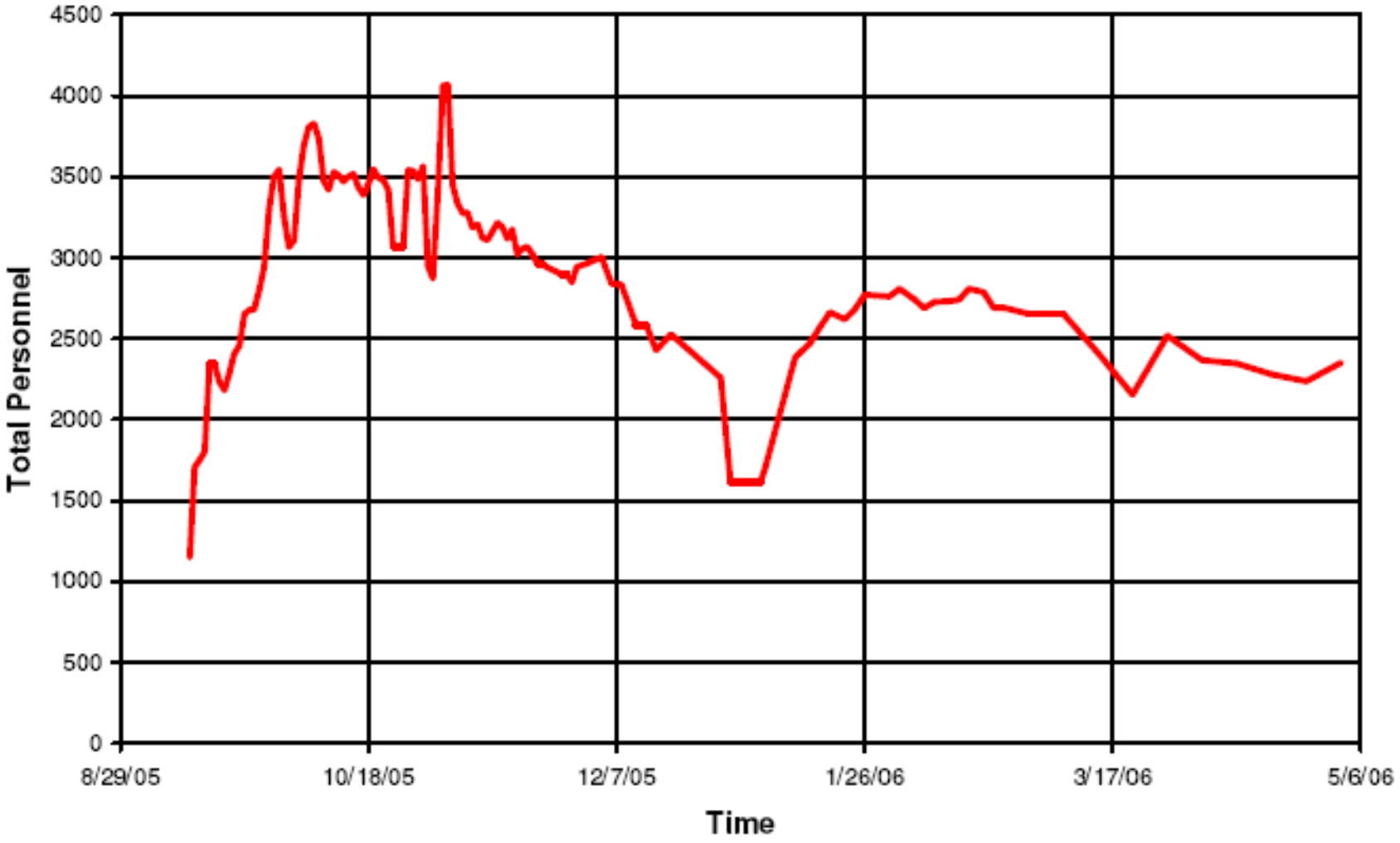
Task Force Hope Personnel



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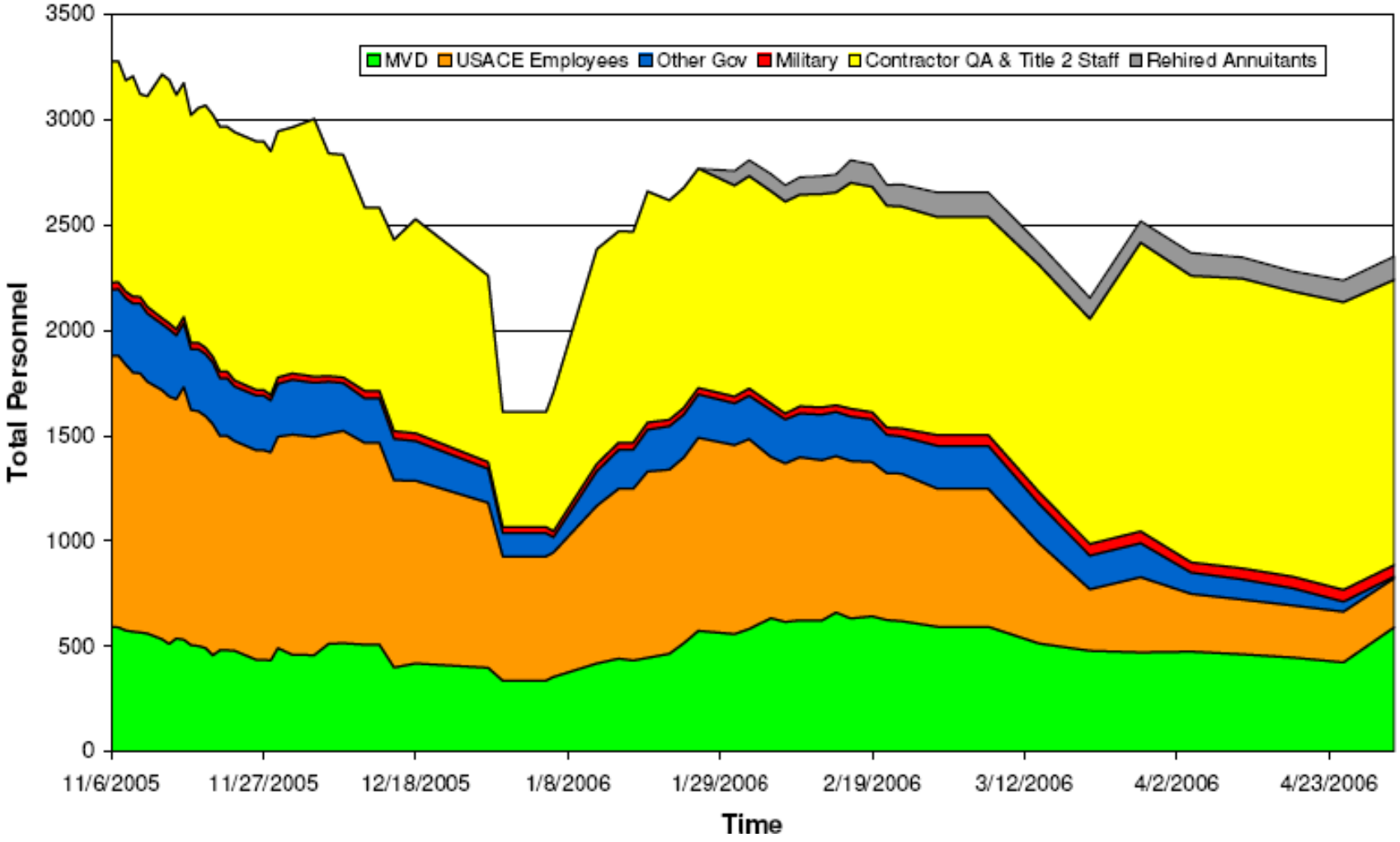
Task Force Hope Personnel



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USACE Response and Recovery Missions

- FEMA Assigned Missions
- USACE Civil Works Missions
  - Restore Navigation
  - Southeast Louisiana Hurricane Protection System

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FEMA Assigned Missions

Temporary Roofing

Potable Water & Ice

Structural

Critical Public Buildings

Debris Removal

Emergency Power

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Louisiana Power Mission

Total Obligated: $35 million
Installed: 299 generators

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Louisiana Critical Public Structures

$44.4 M Obligated to this mission – includes modular buildings, site preparation and furnishings

- **155 of 216 Classrooms Completed**
- **69 of 94 other Facilities Completed**

As of 2 May

Louisiana Temporary Roofing Mission

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- 96,046 Installed
- Installation Complete 5 March

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Operation Blue Roof
Operation Blue Roof is a FEMA-assigned mission of the U.S. Army Corps of Engineers, that provides temporary repairs to roofs damaged by Hurricanes Katrina and Rita.
Corps contractors will install the temporary roof covering at NO COST TO YOU.
To get the help, homeowners must sign a "Right of Entry" form that allows Corps staff to assess roof damage and the Corps contractors to do the work. Installation will be done at the earliest possible date.
For the latest information on locations, dates and hours to sign a "Right of Entry" please call toll free
1-888-ROOF-BLU (1-888-766-3258)
Locations are subject to change. Please call the toll free number before visiting a site to confirm the location.
US Army Corps of Engineers
The Corps of Engineers is committed to helping you and your community. We will work to protect you and your family from further harm by the elements. Your security, safety and peace of mind are our priority. Please allow us the opportunity to be of assistance.

Louisiana & Mississippi Debris Missions

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New Orleans

	Louisiana (% comp.)	Mississippi (% comp.)
Estimated Total Debris	27.0 (79%)	22.2 (86%)
Estimated Total Structural Debris	7.1 (3%)	0.83 (81%)
Overall Total (million cubic yards)	34.1 (63%)	23.0 (86%)

LA Recovery Field Office Demolition

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Anticipate demolition mission of 18,680 buildings

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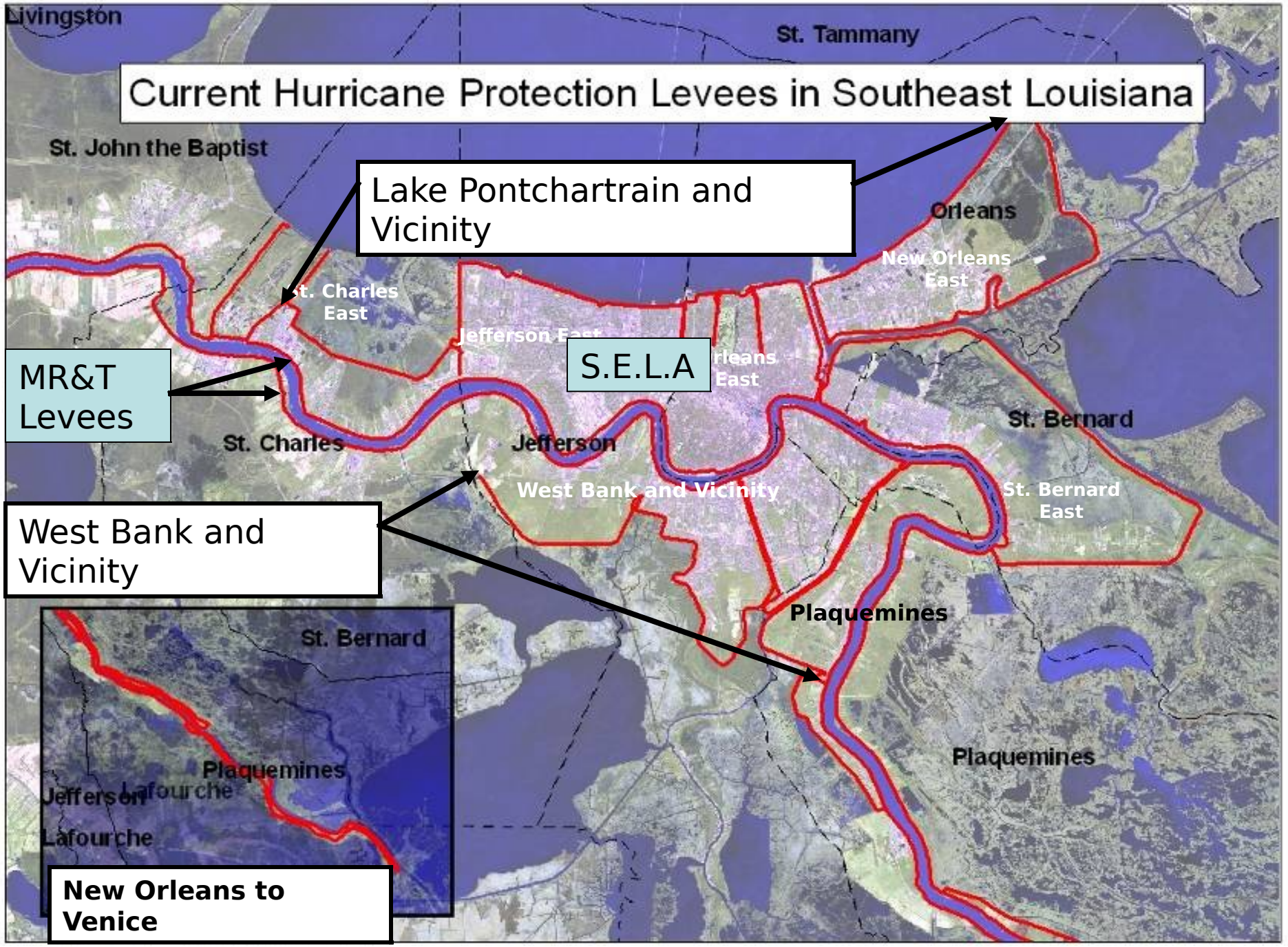
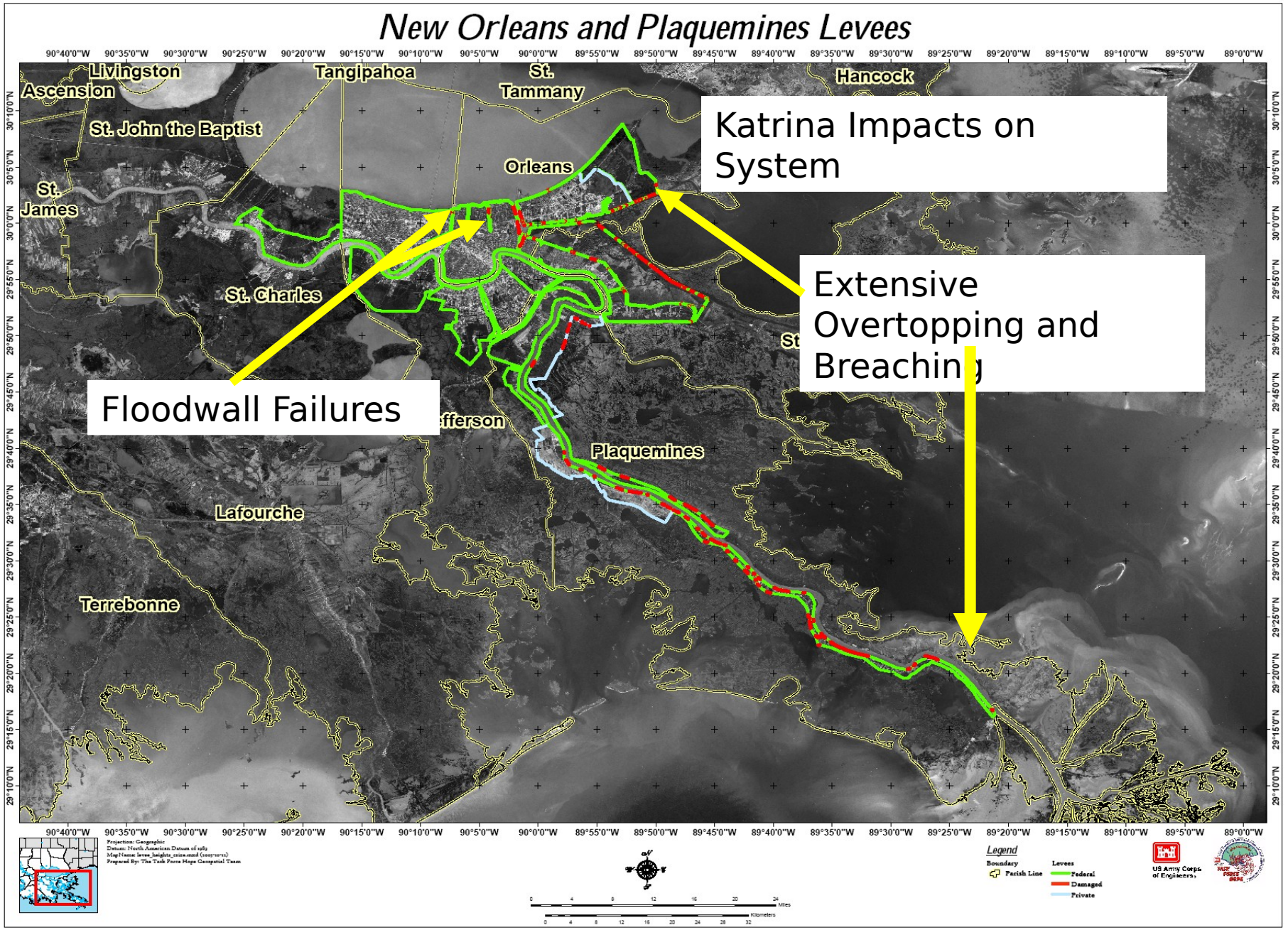
Restore Navigation

- **Lower Mississippi River open to unrestricted traffic 24 hours a day**
- **Atchafalaya River open, Mile 0 to the Gulf**
- **All navigation locks are fully functional**
- **GIWW is open (Calcasieu and Leland Bowman Locks Affected by RITA)**
- **Total team effort with agencies: USCG, DOI, LA DOTD, USACE, NOAA and Navigation Industry**


Livingston
St. Tammany
Current Hurricane Protection Levees in Southeast Louisiana
St. John the Baptist
Lake Pontchartrain and Vicinity
Orleans
New Orleans East
St. Charles East
Jefferson East
S.E.L.A
rleans East
MR&T Levees
St. Bernard
St. Charles
Jefferson
West Bank and Vicinity
St. Bernard East
West Bank and Vicinity
Plaquemines
St. Bernard
Plaquemines
Jefferson
Lafourche
Lafourche
New Orleans to Venice


New Orleans and Plaquemines Levees
Livingston
Ascension
Tangipahoa
St. Tammany
Hancock
St. John the Baptist
Orleans
St. James
St. Charles
Jefferson
Plaquemines
Lafourche
Terrebonne
Katrina Impacts on System
Extensive Overtopping and Breaching
Floodwall Failures
Legend
Boundary
Parish Line
Levees
Federal
Damaged
Private
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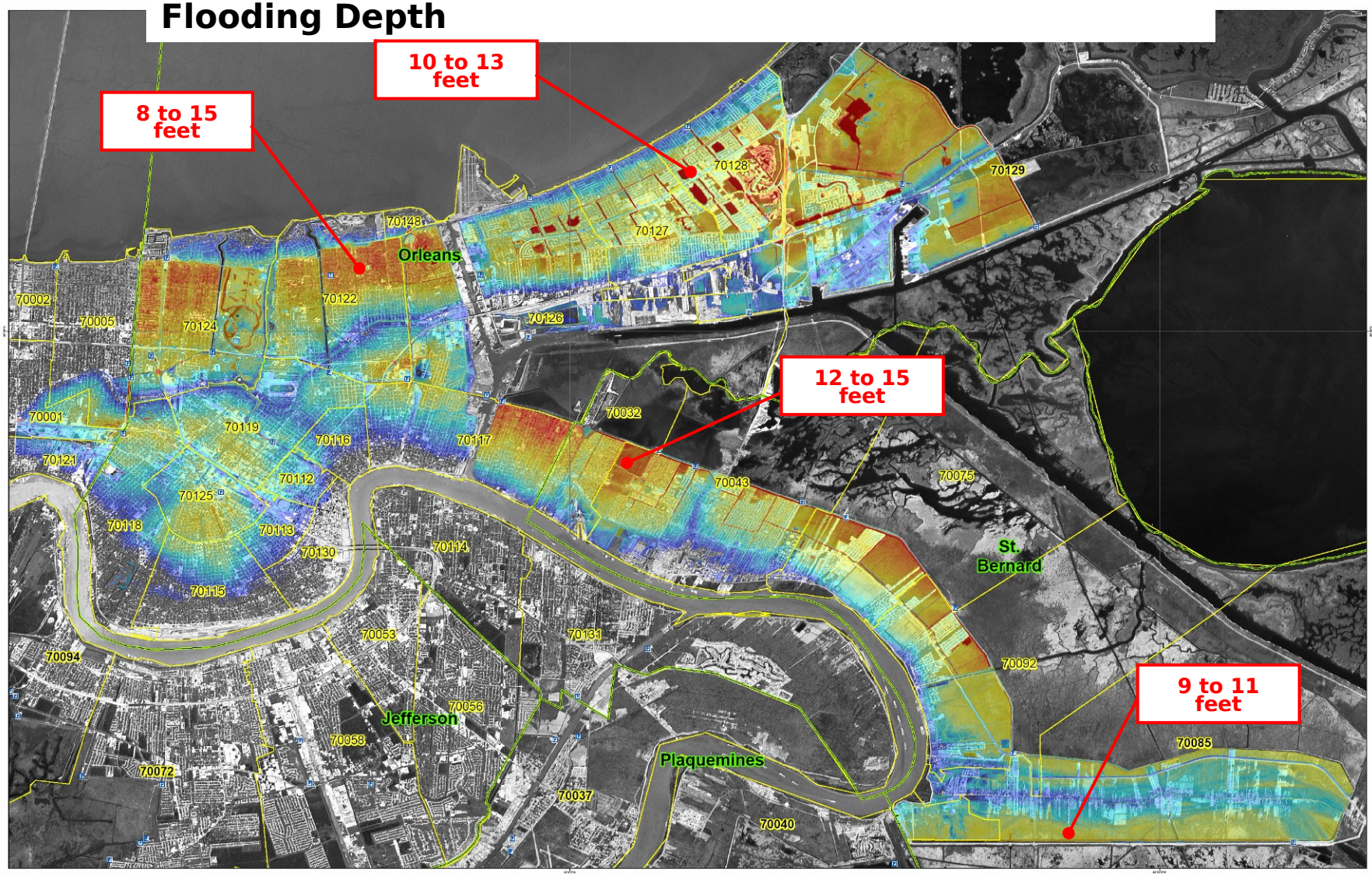
New Orleans metropolitan area: Katrina Maximum Flooding Depth



Datum: North American Datum of 1983
Spheroid: Geodetic Reference System 1980
Projection: Geographic

Background: SPOT Image
Revised: 2005-10-10

1:42,000

0 1 2 3 4 5 6 7 Miles
0 1 2 3 4 5 6 7 8 9 10 Kilometers

Legend
Pumping Stations
Zip Code Boundary
County Line
Max Flood Depth
High : 12 Ft
Low : 0 Ft

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Southeast Louisiana Hurricane Protection

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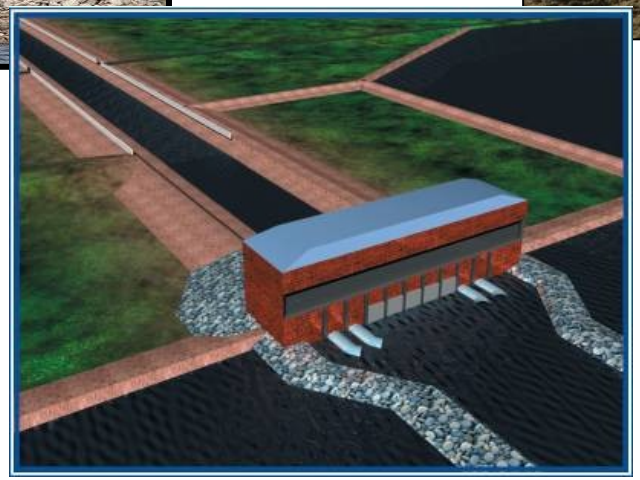
Un-Water (Complete)

- Closed Breaches
- Repaired Pumps
- 53 Days
- 250 Billion Gallons



Improve

Repair, Rebuild and Complete

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Southeast Louisiana Hurricane Protection System

- **Repair:**
  - **Return pre-Katrina protection to hurricane-damaged components by 1 June 2006**
- **Restore:**
  - **Restore undamaged levees/floodwalls to originally authorized heights by 1 Sep 2007**
  - **Correct Floodwall Deficiencies**
- **Complete:**
  - **Accelerated completion of unconstructed portions of authorized projects by Sep 2007**
- **Improve:**
  - **Make improvements to optimize the performance of the existing system**
- **Certify:**
  - **Raise system to provide 100 year level of protection**
- **Evaluate Higher Levels of Protection:**
  - **Louisiana Coastal Protection and Restoration Report - preliminary report due June 2006, final December 2007**

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Levee and Floodwall Performance Evaluation

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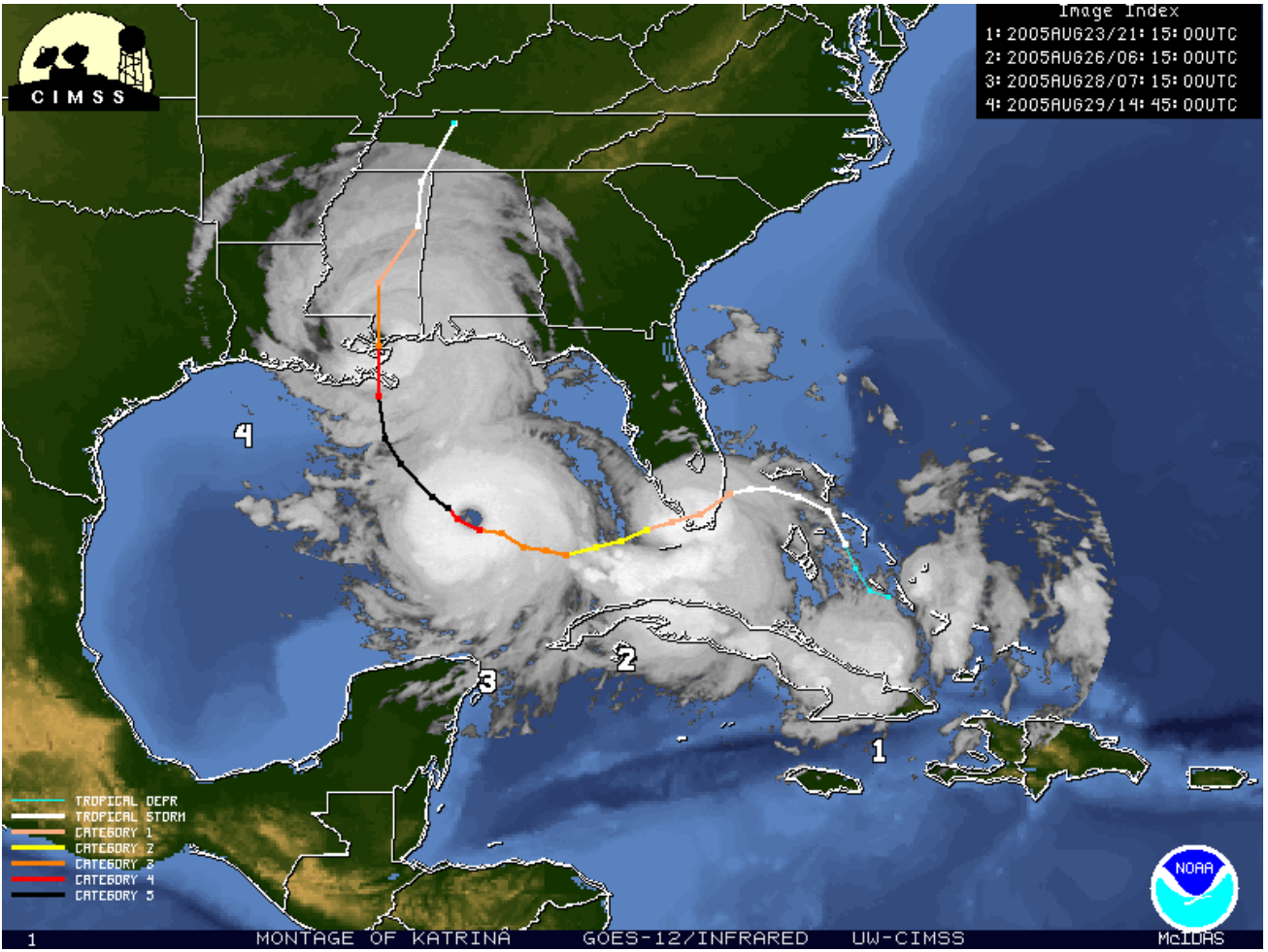
Hurricane Katrina



- ***One of America's largest natural disasters***
- **Cat 5 strength less than 12 hours before landfall**
- ***127 MPH wind at Louisiana landfall***
- **Maximum surge of 28 to 30 feet along Mississippi coast**
- ***75 percent of New Orleans flooded***
- **More than 1,300 dead**

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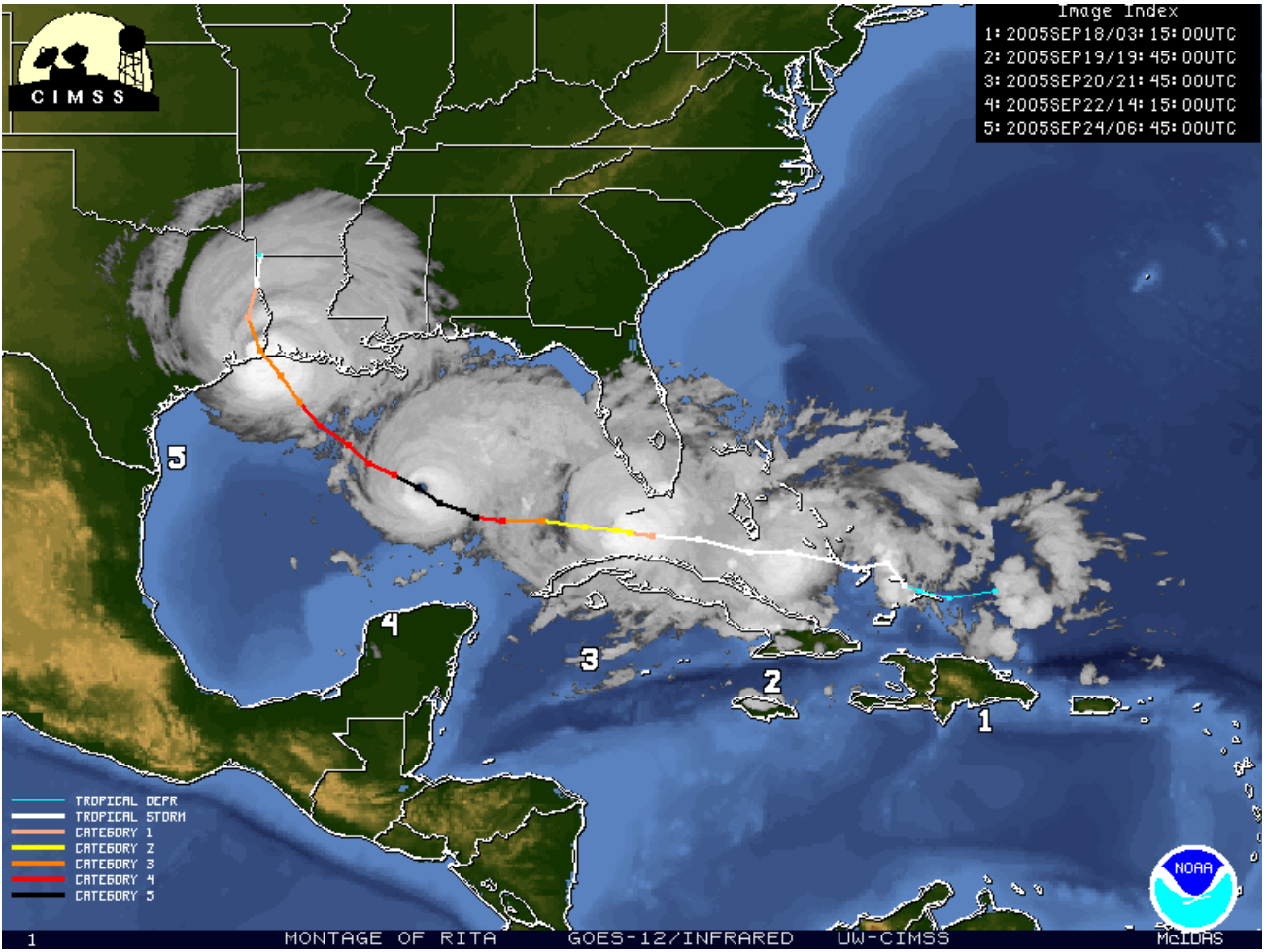
Hurricane Rita



- ***175 MPH max sustained winds in Gulf of Mexico***
- **120 MPH max sustained winds at landfall**
- ***Cat 3 strength at landfall***

Questions or Comments?